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**IV SEMESTER B.TECH. (INDUSTRIAL AND PRODUCTION ENGINEERING)  
END SEMESTER EXAMINATIONS, JUNE 2017**

**SUBJECT: NON CONVENTIONAL MANUFACTURING TECHNIQUES  
[MME 2212]**

**REVISED CREDIT SYSTEM**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer **All the** questions.
- ❖ Missing data may be suitably assumed.

- 1A.** Differentiate between Conventional and Non Conventional machining Process **3**
- 1B.** Explain with sketch Abrasive jet machining **4**
- 1C.** Explain with sketch Electro chemical grinding **3**
- 2A.** Explain the following processes **5**
- i) Reaction Injection Molding
  - ii) Plastic Extrusion
- 2B.** Explain need for development of non Traditional machining techniques **2**
- 2C.** Derive an expression for material removal model for Ductile material in Abrasive jet machining **3**
- 3A.** With neat sketches explain Ultrasonic machining and Plasma arc machining **5**
- 3B.** Explain Chemical Machining **2**
- 3C.** Explain thermo plastics and thermo setting plastics **3**
- 4A.** Explain with sketch Electro Chemical Drilling **4**
- 4B.** Explain with sketch Compression molding **3**
- 4C.** Explain with sketch Electron beam machining **3**
- 5A.** Write a note on following **10**
- i) Electro chemical Equivalent of alloys
  - ii) Casting (Plastics)
  - iii) plastics
  - iv) Compression molding
  - v) Abrasive jet machining Nozzle